LETTERS TO THE EDITOR

Letters intended for publication should be a maximum of 500 words, one table or figure, and 10 references and should be sent to Simon Chapman, deputy editor, at the address given on the inside front cover. Those responding to articles or correspondence published in the journal should be received within six weeks of publication.

Differences in self reported health status between ever-smokers and never-smokers

To the Editor – We refer to the report by Lyons *et al*,[1] who found, using the SF–36 health status questionnaire, that ever-smokers in Wales, United Kingdom, had significantly poorer self rated health on scales relating to physical functioning, bodily pain, general health perception, and vitality compared with never-smokers. We have also collected representative population data for South Australia on the SF–36 and examined differences by smoking status.

Our survey involved a multistage, systematic, clustered area sample of 4200 households, with 75 % of the sample being selected from the Adelaide metropolitan area and the remainder from country centres with a population of 1000 or more. At each selected household, one person aged 15 years or older was selected for interview, being the person whose birthday was next. Interviews were conducted in the respondents' own home by trained interviewers, with six call back visits if the selected respondent was not at home. The survey yielded 3010 completed interviews, with a response rate of 72.4 %. The data were weighted by household size, age, sex, and local government area to the South Australian population.

Of the 3010 respondents to the survey, 47.1 % had never smoked. The remaining 52.9 % comprised 27.8 % smokers and 25.2 % ex-smokers. Using multiple regression, we compared the mean scores on each scale of the SF–36 for ever-smokers and never-smokers, after adjusting for age, sex, occupational status, and alcohol consumption (see table). Overall, we found statistically significant deficits in functioning among ever-smokers for all scales ($p < 0.01$), and among young adults, deficits pertaining to physical functioning, bodily pain and general health perception. Because our sample size was larger than that of Lyons *et al*,[1] statistical significance was more easily achieved in our study. The magnitude of score differences was broadly similar to the Lyons study for the four-scale measuring aspects of mental health, but the first four scales that measure aspects of physical health showed smaller decrements for ever-smokers. This may partly be accounted for by the fact that our sample included 15 to 19 year olds, whereas the Wales study did not.

When directly queried about the effects of smoking on their health, many smokers do not accept that their health has been adversely affected by cigarette smoking, or may attribute health changes to the effects of aging or other factors. Numerous studies show that smokers are less likely than non-smokers to believe that smoking causes disease.[2,3] Furthermore, smokers show unrealistic optimism in rating their own likelihood of developing a smoking related disease compared to the "average" smoker.[4,5] This denial of the effects of smoking on their present and future health is an important cognitive mechanism which facilitates continued smoking.

Given these studies, it is important to note that the SF–36 measures self perceived health status. This study has shown that when smokers are asked to make judgments about their health without a causal attribution, those who have ever smoked perceive their health as significantly poorer than never-smokers. This is so, even for young adults.

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1 Lyons RA, Lo SV, Littlepage BNC. Perception of health amongst ever-smokers and never-smokers: a comparison using the SF-36 Health Survey Questionnaire. *Tobacco Control* 1994; **3**: 213–5.
2 Lee C. Perceptions of immunity to disease in adult smokers. *J Behav Med* 1989; **12**: 267–77.
3 Chapman S, Wong WL, Smith W. Self-exempting beliefs about smoking and health: differences between smokers and ex-smokers. *Am J Public Health* 1993; **83**: 215–9.
4 McKenna FP, Warburton DM, Winwood M. Exploring the limits of optimism: the case of smokers' decision making. *Br J Psychol* 1993; **84**: 389–94.
5 McCoy SB, Gibbons FX, Reis TJ, Gerrard M, Luus CA, Sufka AV. Perceptions of smoking risk as a function of smoking status. *J Behav Med* 1992; **15**: 469–88.

Mean SF-36 scores (and standard errors) for never-smokers and ever-smokers, by age group (corrected for age, sex, alcohol consumption, and occupational status)

Scale	Smoking status	Age 15–29 (n = 703) Mean (SE)	Age 30+ (n = 2307) Mean (SE)	Total (n = 3010) Mean (SE)
PF	Never	94.4 (1.0)	83.3 (1.3)	84.3 (0.9)
	Ever	91.9 (0.8)†	79.7 (1.2)‡	81.5 (0.9)‡
RP	Never	87.2 (2.7)	80.0 (2.3)	80.6 (1.7)
	Ever	83.4 (2.2)	75.8 (2.2)†	76.7 (1.6)†
BP	Never	83.9 (2.0)	78.2 (1.7)	78.8 (1.3)
	Ever	79.3 (1.7)†	74.3 (1.6)‡	74.9 (1.2)‡
GH	Never	77.4 (1.7)	74.6 (1.4)	73.5 (1.0)
	Ever	71.0 (1.4)‡	69.1 (1.3)‡	68.0 (1.0)‡
VT	Never	66.5 (1.7)	65.4 (1.4)	65.1 (1.0)
	Ever	63.4 (1.4)	61.3 (1.3)‡	61.2 (1.0)‡
SF	Never	87.4 (1.8)	90.9 (1.4)	89.1 (1.1)
	Ever	84.3 (1.4)	87.3 (1.3)‡	85.6 (1.0)‡
RE	Never	89.4 (2.6)	89.0 (1.9)	88.6 (1.4)
	Ever	84.2 (2.1)	85.6 (1.8)†	84.7 (1.3)‡
MH	Never	75.2 (1.6)	80.6 (1.1)	78.6 (0.9)
	Ever	73.6 (1.3)	78.5 (1.1)†	76.6 (0.8)†

PF, physical functioning; RP, role limitations–physical; BP, bodily pain; GH, general health; VT, vitality; SF, social functioning; RE, role limitations–emotional; MH, mental health.
† $p < 0.01$ for difference between never- and ever-smokers.
‡ $p < 0.001$ for difference between never- and ever-smokers.

Recurrent aphthous ulcers

To the Editor – I was recently faced with a 52 year old adult Ethiopian who had smoked for 40 pack-years and couldn't stop smoking. During periods of smoking abstinence he developed multiple, painful, mucocutaneous ulcers in the oral cavity, which disappeared as soon as he restarted smoking. He had made several attempts to stop smoking in the past, the longest being for two years, but he couldn't tolerate the painful oral ulcers and was advised by his family to restart smoking, which he did. He had no genital ulcers and enjoyed good health otherwise. He had never attempted a pipe as a replacement for cigarettes.

This was an unusual situation I faced as a chest physician, and I thought I should bring it to the attention of your readers. I will be very grateful to hear from anyone who might have had a similar experience, and I would like to be advised on the management of this condition.

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The above letter was referred to Dr Arden Christen, professor of oral biology and director of the Indiana University Nicotine Dependence Program, who offers the following reply:

In reply – Recurrent aphthous ulcers (RAU, canker sores) is a condition characterised by the formation of one or more extremely painful oral ulcers, which typically occur on non-keratinised oral mucous membranes. Although the precise cause of RAU is unknown, investigators have suggested that it can be related to environmental, immunological, hormonal, genetic, familial, or psychologic factors, including those which concern stress, food consumption, and allergic reactions. These ulcers can make eating, swallowing, or talking extremely painful or difficult. This disorder is very common, occurring in 10 % to 20 % of the general population.[1]

About a dozen investigators have reported that smokers have fewer aphthous ulcers than do non-smokers or people who have never smoked, and that smoking cessation is often followed by the appearance or re-appearance of these extremely uncomfortable oral ulcerative lesions. It has been postulated that both smoked and smokeless forms of tobacco may provide protection against RAU because their use increases keratinisation of oral mucosa.[1]

Some clinicians are successfully treating RAU lesions with the topical or systemic use of steroids, or a combination of both, and an adjuvant application of a 0.12 % chlorhexidine prescription plaque control rinse (Peridex). In addition, patients who suffer from various oral mucosal diseases should